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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

International Application Serial No. PCT/GB01/00735
International Filing Date 22 February 2001 (22.02.01)
Inventor Brian Edward Cowper
Group Art Unit Unknown
Examiner Unknown
Attorney's Docket No. MA83-002
Title: Lock

PRELIMINARY AMENDMENT

To: Assistant Commissioner for Patents
Attn.: DO/US
Washington, D.C. 20231

From: Deepak Malhotra (Tel. 509-624-4276; Fax 509-838-3424)
Wells, St. John, Roberts, Gregory & Matkin P.S.
601 W. First Avenue, Suite 1300
Spokane, WA 99201-3828

AMENDMENTS**In the Specification**

Page 1, after the title, insert the following section:

--CROSS REFERENCE TO RELATED APPLICATION

This application is a 35 U.S.C. §371 of PCT International Application Number PCT/GB01/00735, which was filed 22 February 2001 (22.02.01), and was published in English.--

In the Claims

Please cancel claims 1-31.

Please add new claims as follows.

-- 32. A lock for a wing movable between respective open and closed positions relative to a frame comprising a casing, a bolt operable to extend from or to retract into said casing, an operating member arranged to be operable at one side of the wing, in use, to effect retraction of the bolt, lock means arranged, in use, for key operation at the other side of the wing, and blocking means operable, in use, to prevent operation of the operating member to retract the bolt, the arrangement being such that, in use, in a locked, closed position of the wing said bolt is extended and said blocking means, if operated, prevents retraction of the bolt by said operating member, key operation of said lock means de-actuating said blocking means, if operated.

33. A lock as claimed in Claim 32, wherein the blocking means can be de-actuated from both sides of the wing.

34. A lock as claimed in Claim 32, wherein the blocking means are operable from both sides of the wing to prevent operation of the operating member to retract the bolt.

35. A lock as claimed in Claim 32, wherein the blocking means are operable from said one side only of the wing to prevent operation of the operating member to retract the bolt.

36. A lock as claimed in Claim 35, wherein the blocking means are operable to prevent operation of the operating member to retract the bolt by key operable lock means at said one side of the wing.

37. A lock as claimed in Claim 36, wherein said key operable lock means are operable at said one side of the wing to de-actuate the blocking means.

38. A lock as claimed in Claim 37, wherein the blocking means is an angularly movable cam.

39. A lock as claimed in Claim 38, wherein the operating member is a pivotable handle.

40. A lock as claimed in Claim 39, wherein the handle has a projecting surface which engages said cam when the blocking means are operated and an attempt is made to pivot the handle.

41. A lock as claimed in Claim 38, wherein the cam is on a member arranged for limited angular movement by operation of said key operable lock means at said one side of the wing.

42. A lock as claimed in Claim 41, wherein an angularly movable plug of said lock means at said one side of the wing has a part received in a recess at one end of said member with lost motion between said plug and said member.

43. A lock as claimed in Claim 42, wherein the key of said lock means at said one side of the wing can be inserted into or withdrawn from said plug only when said plug is in a first position, angular movement of said plug in one direction from said first position to a second position operating said cam to block said operation of said operating member, with said plug then being angularly movable to said first position to take up said lost motion, and

thereafter angular movement of said plug in the opposite direction from said first position to a third position de-activating said cam to remove said blocking, with the plug then being angularly movable to said first position to take up said lost motion.

44. A lock as claimed in Claim 43, wherein the cam is restrained against inadvertent angular movement in both its blocking and de-actuated states.

45. A lock as claimed in Claim 42, wherein at its other end, said member defines a surface for engagement by a locking bar of said lock means for operation at the other side of the wing.

46. A lock as claimed in Claim 45, wherein in the key insertion and withdrawal position of the locking bar, with said blocking means operated, the bar is spaced angularly from said surface defined at said other end of the member, operation of an inserted key in one direction causing the bar to take up lost motion relative to said member and to engage said surface thereby to move the member angularly to de-actuate the blocking of the cam on the operating member, the bar thereafter being moved angularly by operation of the key in the opposite direction again to take up lost motion relative to said member, to return the bar to its key insertion and withdrawal position.

47. A lock as claimed in Claim 46, wherein the locking bar engagement surface is a composite surface defined by two side surfaces respectively of a pair of diametrically opposed V-shaped projections within a bore at said other end of the member.

48. A lock as claimed in Claim 46, wherein the member mounts an angularly movable bolt drive cam and the lost motion taken up by the bar

relative to the member prior to de-activation of the blocking means corresponds to movement from a rest position of the bolt drive cam in releasing means deadlocking the bolt in its extended position and engaging the bolt, so as to retract it as the blocking means are de-actuated.

49. A lock as claimed in Claim 48, wherein the lost motion taken up by the bar after de-activation of the blocking means corresponds to movement of the bolt drive cam back to its rest position from a position to where it retracts the bolt for engagement by bolt holding means.

50. A lock as claimed in Claim 32, wherein said key operation of said lock means retracts the bolt.

51. A lock for a wing movable between open and closed positions relative to a frame comprising a casing, a bolt operable to extend from or to retract into said casing, an operating member at one side of the wing, in use, arranged to be pivotally operable to retract the bolt, a pivoted locking member at least partly within the casing, arranged to deadlock the bolt when it is in its extended position, and an element providing within the casing either at least part of a bearing surface for a pivot of the operating member or a pivot of the locking member, or at least parts of respective bearing surfaces for respective pivots of the operating member and the locking member.

52. A lock as claimed in Claim 51, wherein the element provides at least parts respectively of bearing surfaces for respective pivots of the operating member and the locking member, and for each pivot, said element provides a semi-cylindrical bearing surface.

53. A lock as claimed in Claim 52, wherein each bearing surface mates with a corresponding semi-cylindrical bearing surface provided by the casing.

54. A lock as claimed in Claim 53, wherein said element has a pair of spaced, parallel arms providing respective semi-cylindrical bearing surfaces for respective opposite ends of a pivot rod for the operating member.

55. A lock as claimed in Claim 53, wherein said element has a pair of spaced, parallel arms providing respective semi-cylindrical bearing surfaces for respective opposite ends of a pivot rod for the locking member.

56. A lock as claimed in Claim 55, wherein the element is secured to the casing, and a solid wall of the element is arranged immediately adjacent a side of said pivot rod for the locking member opposite from the pivot rod side at which the locking member extends.

57. A lock as claimed in Claim 51, wherein the element provides a pair of spaced arms defining an opening therebetween, a spring biased bolt release member having a part slidably arranged in said opening, with an end of the biasing spring engaging said arms.

58. A lock as claimed in Claim 51, wherein the element provides a guide slot for a spring-like connector component between the operating member and the locking member, the component operating so that via said component the locking member is released from engagement with the bolt when the operating member is pivoted to retract the bolt from its extended position.

59. A lock as claimed in Claim 51, wherein the element has a portion projecting outwardly through an opening of the casing, said portion receiving a lock cylinder and plug assembly.

60. A lock as claimed in Claim 51, wherein the element has at least one hole therein for fixing means securing it to said casing.

61. A lock as claimed in Claim 51, wherein said element is unitary.

62. A lock as claimed in Claim 61, wherein said element is a casting.--

REMARKS

This preliminary amendment accompanies a request to commence 35 U.S.C. §371 U.S. national stage processing.

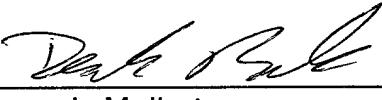
Claims 1-31 have been cancelled in favor of new claims 32-62. New claims 25-48 do not have multiple dependencies, but are otherwise similar to the claims published in International Publication No. WO 01/69015 A2.

Examination on the merits is requested.

The undersigned is available for telephone consultation at any time.

Respectfully submitted,

Dated: November 8, 2001

By: 
Deepak Malhotra
Reg. No. 33,560

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VERSIONS WITH MARKINGS TO SHOW CHANGES MADE

In the Claims

The claims have been amended as follows. Underlines indicate insertions and ~~strikeouts~~ indicate deletions.

Claims 1-31 have been cancelled.

Claims 32-62 have been added.

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